Attachment 10

Management of Accumulated Liquids in Tank Systems

8.72 EDS Response to Requirements

The storage and treatment tanks at this facility are single walled located within a secondary containment area. This containment area is enclosed by concrete walls approximately four feet or eight feet in height. Each containment floor is sloped to discharge spills directly into its sump vault. A pump is associated with each sump such that the wastewater accumulated in this sump will be transferred to one of the other tanks within the containment area. The containment area will then be rinsed and the wash water transferred to the rinse wash water vault (RWWV). Concentrations will be very small but the wash water will be sampled and then pumped to the head of the plant. The containment areas and the sumps are equipped with leak detection and level sensor equipment designed to alert the operator if spills occur. The operator will sample the wastewater in the sump prior to pumping from it. This will enable the operator to determine the characteristics of the collected water and the hazards associated with transferring the spilled wastewater into the RWV. The collected wastewater can be diluted prior to this transfer by rinsing the containment area and the sump with water. This procedure will also prevent any hazards associated with mixing of leftover wastewater with wastewater from a subsequent spill.

Leaks from failure of tanks will be contained within the containment. A skirt provided around the tank will limit splash or squirts form the tanks, and allow leaking wastewater to discharge directly to the floor of the containment area and eventually into its sump vault. Hence, hazards associated

with long squirts and splashes of wastewater on unsuspecting operator or on adjacent equipment are eliminated.

The containment area for the tanks, as well as the drum storage area, will be lined with a durable synthetic polymer liner, developed by Elastic-Liner, that will span possible future cracks in the underlying concrete and maintain an impervious layer to leaks and spills. The manufacturer's product data sheets are provide in Section 8.00 tab "Corrosion Protection - Concrete Liner." As described above, each containment area has a sump vault receiving all spills entrapped in the area. As an operating practice, standing liquid detected in the containment zone will be removed immediately using manually operated pumps followed by a thorough rinsing the containment area.

The spreadsheet in Section 8.00 tab "Tank Schedule" provides dimensions and volumes of each containment area, illustrating compliance with secondary containment requirements. The secondary containment area provides a storage volume equal to the total capacity of all the tanks within its boundary. Due to space limitations, the squirts from these tanks will be maintained by using a fixed skirt attached to the tank.

The recessed floors in each containment area are sloped to collect liquids in a corner blind sump from where it can be pumped out into other storage tanks. A 6-inch curb will be installed along the perimeter of each containment area that will prevent accidental spills from other process equipment at the finished floor level from flowing into the containment area. Any spills within these containment areas will be pumped out immediately, thereby not maintaining any standing liquid in these areas.

The containment area is surrounded by a 6-inch curb along its perimeter that will prevent spills on the finished floor from entering the contained areas. In addition, the total available containment volume capacity combining all the containment areas, is sufficient to contain the maximum

217,622 gallons that will be stored at this facility plus the 11,000 gallon container storage area capacity. See Section 8.00 tab "Tank Schedule."

Level sensors will be installed with appropriate enunciators in each tank. Each tank will be equipped with a leak detection system. In addition, detection instrument systems will be installed in each containment area to enunciate the presence of liquid in the contained area, and bring it to the attention of the operator for immediate action. As an operating practice, standing liquid detected in the secondary containment area will be removed immediately. A process layout plan of the treatment facility is provided in Section 8.00 tab "Process Layout Plan" and building process sections are provided in Section 8.00 tab "Building Process sections." The drawings also identify the plant equipment and the corresponding containment areas.

Incompatible waste will be stored in a separate, smaller receiving tank (RT-10). Influent and effluent pipes and each tank will be purged, rinsed and cleaned at the end of each use.

Gas monitoring devices will be located within the facility to detect gases in the working areas around each equipment area.